



# MOSQUITOES

Mosquitoes are insects which are familiar to most people either by their distinctive buzzing sound when flying about at night or the irritating bite they often inflict on certain people.

## Facts About Mosquitoes

1. All mosquitoes must have water in which to complete their life cycle.
2. Only seven days are required during warm weather.
3. Mosquitoes never develop in grass or shrubbery although the flying adults frequently rest there during daylight hours.
4. Only the female bites to obtain a blood meal. The male mosquito feeds only on plant juices.
5. The female mosquito may live as long as three weeks during the summer and many months during the winter in order to lay her eggs in the spring.

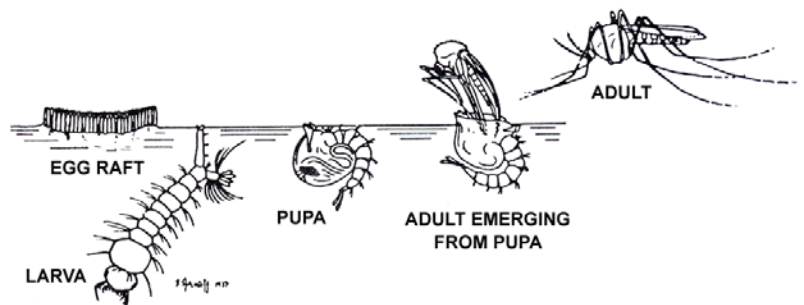


**The Mosquito**

## The Mosquito Life Cycle

**Eggs:** The common mosquito lays an egg raft which floats on the water. Each raft contains from 100-400 eggs. Within a few days the eggs hatch into larvae.

**Larva:** The larva or “wiggler” comes to the surface to breathe through a tube called a siphon. It sheds its skin or molts four times during the next several days. It grows rapidly between each molt. On the fourth molt it changes into a pupa.



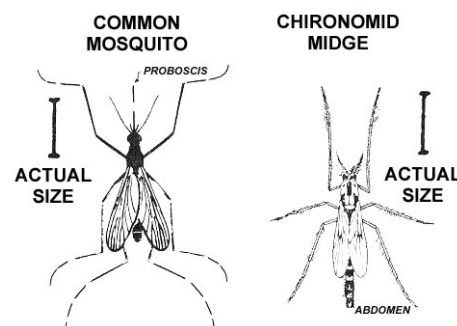
**Pupa:** The pupa or “tumbler” cannot eat. It breathes through two tubes on its back. The mosquito grows inside the pupa and in two days or so when it is fully developed, it splits the pupal skin and emerges as an adult to complete the life cycle or metamorphosis of the mosquito.

**Adult:** The newly emerged adult rests on the surface of the water until it is strong enough to fly away for something to eat.

## Is it a mosquito or a midge?

Chironomid midges cannot bite and are not harmful to public health. They can be a public nuisance because they develop in great numbers. They gather in swarms and when at rest they cover screen doors, windows, and walls. They look much like a mosquito and develop in the same water where mosquitoes develop. On closer look, however, the midge:

- (1) Does not have a biter (*proboscis*).
- (2) The body (abdomen) is longer than the wings.
- (3) The size of the midge is about 1/2 that of a mosquito.



## Prevention and Control of Mosquitoes

Prevention and control depends on locating breeding sites. Any container which is open, outside and can hold water for a week or more is a likely breeding site:

- ornamental ponds
- swimming pools
- containers of all sorts
- leaky plumbing or air conditioners
- boats
- animal water troughs

### Ornamental Pond



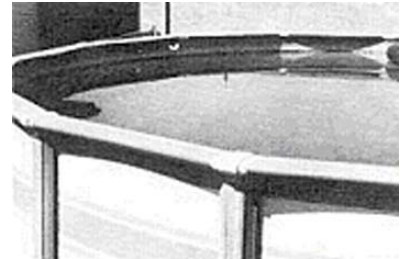
Stock with mosquito fish. Add goldfish for looks if desired. Remove leaves and thin out pond lilies. Keep water level up.

### Concrete or Plastic Swimming Pool



Operate filter and skimmer every day to remove egg rafts and larva. Chlorine will NOT kill mosquito larva. If pool cover is used, keep it tightly sealed.

### Plastic Wading Pool



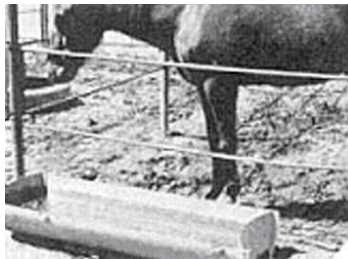
Change water every week. Store indoors when on vacation or not in use.

### Boat



Prevent accumulation of bilge water. Store small boats upside down or cover to keep out the rain and irrigation water from your sprinklers.

### Animal Water Trough



Stock large troughs with mosquito fish. Clean small troughs every week.

### Containers of All Sorts



Remove and dispose of all empty containers (tin cans, jars, buckets, barrels) old tires and tubs that will collect rain or sprinkler water.

### The Use of Mosquitofish (*Gambusia affinis*) in Mosquito Control

Mosquitofish are indispensable to the mosquito control program in San Bernardino County. They eat mosquito larva as fast as they hatch from the eggs. Mosquitofish are furnished without charge for stocking ornamental ponds, unused swimming pools, and animal watering troughs. They require no feeding and care is limited to protecting them from chlorine or other chemicals used to clean the pond.



#### County of San Bernardino Department of Public Health DIVISION OF ENVIRONMENTAL HEALTH SERVICES VECTOR CONTROL PROGRAM

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